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| Office Action Summary | Application No. 10/569,950 | Applicant(s) NAKATANI, NORIO | |
| | Examiner PUNAM PATEL | Art Unit 2855 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04/10/2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4 and 6-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,6, and 7 is/are rejected.
- 7) ☒ Claim(s) 8-10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 February 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

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| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. <u>20080508</u> . |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>02/28/2006</u> . | 6) <input type="checkbox"/> Other: _____. |

DETAILED ACTION

Claim Objections

Claim 7 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 4.

When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 2, 4, 6, and 7 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-6 of U.S. Patent No. 7,308,833 in view of Applicant's Admitted Prior Art and JP 62-195558.

With respect to Claims 1, 2, 4, 6, and 7, US 7,308,833 claims the wire harness for connecting the lead pins of an electrical power steering assembly with a control board (see Claims 1-6), however does not specifically disclose the steering assembly comprising two shafts connected by a torsion bar and the sleeve portion being formed with a inwardly bent cut-bent portion at a side thereof.

JP 62-195558 discloses a cylindrical sleeve portion (8) for connecting a wire harness (9) to pins (6) wherein the sleeve portion (8) comprises an inwardly bent cut-bent (8c) portion at a side thereof. It would have been obvious to modify the sleeve of US 7,308,833 to include cut-bent portions, as disclosed on JP 62-195558, in order to prevent a slip out of the pins (JP 62-195558, page 6, line 6-11 and 17-20).

AAPA teaches that a conventional steering system comprises: a steering shaft including an input shaft and an output shaft which are coaxially interconnected via a torsion bar; a cylindrical housing for rotatably supporting the steering shaft; a detector coil accommodated in the housing as surrounding the steering shaft in order to detect a torsion angle of the torsion bar; an electric motor for applying a steering assist force to the output shaft or a steering mechanism operatively coupled with the output shaft; a control board for controlling the steering assist force from the electric motor based on the variations of impedance produced in the detector coil; and a plurality of lead pins projecting from an outside periphery of the detector coil (Specification, ¶ 2).

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the wire harness in an electrical steering system with two shafts connected by a torsion bar, since those are components of conventional and notoriously well known electrical steering systems.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1, 2, 4, 6, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muta (US 5,586,901) in view of Applicant's Admitted Prior Art (AAPA) and JP 62-195558.

With respect to Claims 1, 2, 4, 6, and 7, Muta teaches a wire harness for interconnecting lead pins a lead wire (Fig. 6 and col. 2, lines 20-27), wherein the wire harness comprises housing (#31, wherein the housing is read as the coupler) with a plurality of conductive sleeve terminals, each terminal comprising a cylindrical sleeve portion (#43) fitted about the lead pin (#22) and a connection portion (#35) connected with the lead wires of the wire harness and upstanding from an outside periphery of the sleeve portion. Muta Fig. 6 is compared with Applicant's Fig. 4. However, Muta fails to teach the cylindrical sleeve portion being formed with an inwardly bent cut-bent portion at a side thereof and the wire harness being used in an electrical steering shaft.

JP 62-195558 discloses a cylindrical sleeve portion (8) for connecting a wire harness (9) to pins (6) wherein the sleeve portion (8) comprises an inwardly bent cut-bent (8c) portion at a

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side thereof. It would have been obvious to modify the sleeve of Muta to include cut-bent portions, as disclosed on JP 62-195558, in order to prevent a slip out of the pins (JP 62-195558, page 6, line 6-11 and 17-20).

AAPA teaches a conventional electric power steering system comprising a steering shaft including an input shaft and an output shaft which are coaxially interconnected via a torsion bar; a cylindrical housing for rotatably supporting the steering shaft; a detector coil accommodated in the housing as surrounding the steering shaft in order to detect a torsion angle of the torsion bar; an electric motor for applying a steering assist force to the output shaft or a steering mechanism operatively coupled with the output shaft; a control board for controlling the steering assist force from the electric motor based on the variations of impedance produced in the detector coil; and a plurality of lead pins projecting from an outside periphery of the detector coil (Specification, ¶ 2). AAPA also teaches that it is well known to utilize a wire harness in such a power steering system (Specification, ¶ 5). It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the wire harness of Muta, in a conventional power steering system, as taught by AAPA, since it would be an application/end use of the wire harness in a market where it is well known to utilize wire harnesses (AAPA, Specification, ¶ 5 & Abstract of JP 2003227767 (provided in the PTO-892 dated 12/06/2007 - both references establish the well known utilization of wire harnesses in electric power steering systems). *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385 (2007).

Allowable Subject Matter

The indicated allowability of claims 3 and 5 is withdrawn in view of the newly discovered reference JP 62-195558.

Claims 8-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art fails to explicitly teach or provide motivation for further modifying the cylindrical sleeve portion to include both cut-bent portions on the side of the sleeves **and solder on the inside surface of the sleeve.**

Conclusion

Applicant's submission of prior art not provided in the originally filed IDS dated 02/20/2006 or the documents submitted with the documents submitted with the 371 application dated 02/20/2006 prompted the new grounds of rejection presented in this office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 609.04(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PUNAM PATEL whose telephone number is (571)272-6794.

The examiner can normally be reached on Monday to Friday 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on (571) 272-2180. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Edward Lefkowitz/
Supervisory Patent Examiner, Art Unit 2855

PP
05/09/2008